

A DESCRIPTIVE LIST OF THE PLANTS COLLECTED  
BY DR. F. E. BLAISDELL AT NOME CITY, ALASKA.

ALICE EASTWOOD.

[Concluded from p. 213]

GENTIANACEAE.

133. *GENTIANA FRIGIDA* Haenke. Jacq. Coll. 2: 13. Ledeb. Fl. Ross. 3: 65. DC. Prodr. 9: 111.—Stems erect, glabrous, 1–1.5<sup>dm</sup> high: radical leaves linear, connate at base, 1-nerved, 3–6<sup>cm</sup> long, 2–3<sup>mm</sup> wide; cauline leaves broad, 1 or 2 pairs, broader and shorter: flowers terminal, 1–3, sessile or on short peduncles, subtended by a pair of leaves: calyx about half as long as the corolla, with the linear-lanceolate divisions shorter than the tube: corolla funnelform, about 4<sup>cm</sup> long, whitish with greenish-purple dots, the lobes short and broad, sinuate, the plaits broad.

Specimens too young for fruit.

134. *GENTIANA GLAUCA* Pall. Fl. Ross. 2: 104. *pl.* 93, *fig.* 2. 1784–88. Griseb. in Hook. Fl. Bor.-Am. 2: 58. *pl.* 147.—Stems from slender running rootstocks, glabrous throughout, erect, generally with two pairs of leaves, 6–15<sup>cm</sup> high, terminated by a few-flowered capitate cyme: leaves obovate to oval, 1–1.5<sup>cm</sup> long, scabrous on the margins: flowers subtended by a pair of involucral leaves, sessile or on short pedicels: calyx campanulate, 7<sup>mm</sup> long, with deltoid lobes 2<sup>mm</sup> long, tapering to the base: corolla 15<sup>mm</sup> long, acuminate at base, with broadly deltoid obtuse lobes 1.5<sup>mm</sup> long, the membranous sinus between each either truncate or tipped with a very short lobe: stamens unevenly inserted: ovary on a stipe of almost its own length: capsule exserted beyond the corolla when ripe: seeds invested with a transparent cellular coat which is winged at 2, 3, or 4 angles.

Type locality: "Kamtschatka" ex Ledeb. Fl. Ross 3: 66.

[APRIL



I am not at all sure that this is *G. glauca*. The foliage is apparently bright green, the filaments are uneven, and the lobes in the sinus of the corolla divisions scarcely apparent.

135. *GENTIANA PROPINQUA* Richards. App. Frankl. Journ. 734. 1823. Hook. Fl. Bor.-Am. 2: 62. *pl.* 150.—Root apparently annual: main stem slender, angled, glabrous 5–12<sup>cm</sup> high, with several more slender and shorter stems or branches from the axils of the radical leaves: leaves in a rosulate tuft at base, narrowly obovate, 1<sup>cm</sup> long, 4<sup>mm</sup> wide; cauline leaves ovate, sessile, scabrous on the margins, always with the long-peduncled flowers in their axils: peduncles 1–3<sup>cm</sup> long, slightly winged especially under the flowers: calyx of two broad ovate-acuminate divisions 5<sup>mm</sup> long and 2<sup>mm</sup> broad, and two linear-lanceolate divisions half as broad, scabrous on the margins: divisions of the corolla entire, ovate-acuminate, as long as the swollen tube; glands at base of tube small: stamens inserted below the sinus, the reniform anthers exserted: capsule lanceolate in outline, sessile, 6<sup>mm</sup> long: seeds oval, brown, 1<sup>mm</sup> long, minutely papillate.

Type locality: "Cumberland house to Bear lake, and Bear lake river."

#### CAMPANULACEAE.

136. *CAMPANULA LASIOCARPA* Cham. Linnaea 4: 39. 1829.—Stems 2–10<sup>cm</sup> high, slender, sparingly leafy below, villous: radical leaves lanceolate, narrowed to a petiole, dentate with remote bristly teeth, usually curved; stem leaves linear with the marginal teeth longer: tube of calyx campanulate, half as long as the narrow, acuminate divisions, laciniolate-dentate: corolla campanulate, blue, 15<sup>mm</sup> long, 2<sup>cm</sup> broad, shortly acuminate, 3-nerved, with broad nerves.

Type locality: "In collibus et montibus Unalascheae."

137. *CAMPANULA UNIFLORA* L. Sp. Pl. 163. 1753. Fl. Lapp. *pl.* 9.—Stems simple, 1-flowered: radical leaves spatulate to linear-oblongate, 5–15<sup>mm</sup> long: cauline leaves distant, linear-acuminate: flowers small, dark blue: corolla about twice as long



as the subulate divisions of the calyx: tube and divisions of the latter cinereous with white hairs: capsule clavate, 3<sup>cm</sup> long.

Type range: "in alpihus Lapponicis."

POLEMONIACEAE.

138. *POLEMONIUM ACUTIFLORUM* Willd. ex Schult. Syst. 4: 792. DC. Prodr. 9: 318.—Stems erect from creeping scaly rootstocks, 2–4<sup>dm</sup> high, glabrous except for the viscid pubescence of the inflorescence: leaves few, those from the root somewhat larger than the cauline leaves; leaflets 9–24, opposite or alternate, oblong-lanceolate to ovate, mucronate, 3–15<sup>mm</sup> long, decurrent on the winged rachis; petioles generally shorter than the blades, winged, dilated and sheathing at base, the whole leaf 5–10<sup>cm</sup> long; stem leaves few and scattered, similar to the radical leaves but smaller, with the petiole woolly-ciliate, especially at base: flowers in a narrow thyrsus or panicle with the peduncles 6<sup>mm</sup> to 6<sup>cm</sup> long; bracts usually trifoliate with linear divisions, sessile and clasping; bractlets lanceolate or scale-like, sometimes wanting: calyx campanulate, with the divisions about half the entire length, in flower 4<sup>mm</sup>, becoming 10<sup>mm</sup> in age; tube glandular-woolly, thin and membranous between the divisions; divisions of the calyx triangular-subulate, acute or callous-tipped, veiny: corolla rotate-campanulate, with tube very short and divisions obovate; these blue, often darker at base, obovate, acute or obtuse, with margin crisped or entire, ciliate, 12<sup>mm</sup> long, 8<sup>mm</sup> wide; tube with a hairy ring 3<sup>mm</sup> from its base and tufted at the base of the filaments: filaments glabrous, about 8<sup>mm</sup> long, one-third shorter than the corolla: style but little longer: capsule as long as or sometimes longer than the tube of the calyx: seeds brown, linear-oblong, 4<sup>mm</sup> long, the body of the seed chestnut-brown with yellow-brown wings at each end.

Type locality: "in Americae borealis plaga occidentali (Pallas)."

In Ledebour *Flora Rossica* 3: 84 this is given as a variety of *P. caeruleum* L. It was collected by Chamisso at Unalashka. Insula Sancti Georgi Promontorium Espenbergii. Sinus Eschscholzii. Insula Chamissonis. ex Linnaea 6: 551.



We have no specimens of this for comparison and all the descriptions are so meager as to be quite unsatisfactory; but it is certainly near this if not quite identical.

## BORAGINACEAE.

139. *Mertensia Alaskana*, n. sp.—Stems erect, 2–4<sup>dm</sup> high, leafy with erect leaves appressed to the lower stem, more spreading on the upper, ribbed, glabrous: lower cauline leaves oblong-lanceolate, acuminate, on broad margined petioles about the length of the blade, together 3–8<sup>cm</sup>; upper leaves sessile, ovate-lanceolate, acuminate, 4–7<sup>cm</sup> long, revolute, with prominent veins, strigose-pubescent on both surfaces, but more so on the lower, with the short appressed bristles minutely pustulate at base: panicle generally of 3 branches, the lower one solitary, the two upper dichotomous, 2-leaved at base and with a single flower on a deflexed pedicel in the fork; peduncles glabrate, 6–8<sup>cm</sup> long, naked to the racemose or again panicked flowers; bracts 2, opposite, 15<sup>mm</sup> long, lanceolate-attenuate; pedicels about 1<sup>cm</sup> long, sparingly strigose-pubescent, spreading, erect or recurved: calyx divisions subulate, 2<sup>mm</sup> long, glabrous on the outer surface, minutely hispid on the inner, with ciliate margins: tube of corolla 5<sup>mm</sup> long, 3<sup>mm</sup> broad; limb campanulate, 7<sup>mm</sup> long, almost 1<sup>cm</sup> in diameter; the rounded lobes 3<sup>mm</sup> long, 4<sup>mm</sup> wide; folds in the throat forming a yellow moniliform ring, those at the base of the tube fleshy or bladder-like: stamens on broad margined filaments inserted below the throat; the yellow, narrowly elliptical anthers almost 3<sup>mm</sup> long, together with half the filament exerted from the throat but included in the limb: nutlets exceeding the sepals, pectinately rugose-tuberculate on the dorsal surface and margins, strongly keeled and rugose on the ventral, loosely investing the seed and firmly attached to the gynobase, very brittle; the scar of attachment near the base; the apices not connivent.

This is included by Dr. Gray under *M. paniculata* Don., Syn. Fl. 2: 201. Specimens sent to Dr. E. L. Greene were identified by him as *M. strigosa*, Pittonia 4: 88. It does not agree with the description of his plant and seems to me to be undescribed.



140. MYOSOTIS SYLVATICA ALPESTRIS Koch. — *M. alpestris* Schmidt, Lehm. Asper. 86. — Caudex branched, from woody rootstocks: stem leafy, simple below the panicle, 10–18<sup>cm</sup> high, with loose hirsute pubescence: radical leaves oblong-lanceolate, tapering to petioles equaling or longer than the blades, together 2.5–6.5<sup>cm</sup> long, 5–10<sup>mm</sup> wide, hirsute and ciliate, obtuse; cauline leaves narrower, oblong, sessile, 1–3<sup>cm</sup> long: peduncles slender, flowers at first close together, later becoming 3<sup>cm</sup> apart; pedicels becoming twice as long as the calyx: sepals subulate, 2<sup>mm</sup> long, white-hirsute: corolla blue, salverform, with tube equaling or surpassing the calyx; limb longer than the tube, with sub-orbicular lobes 2.5<sup>mm</sup> broad; folds in the throat bilobed; appendages at base 10, globular: stamens inserted on short filaments below the folds; the yellow, elliptical anthers protruding from the throat: nutlets not all maturing, erect, very glossy, attached at the base; scar round; apices somewhat spreading; margined and somewhat keeled on the inner side near the apex.

The specimens at hand vary considerably in size.

141. OMPHALODES NANA Gray Syn. Fl. Suppl. 423. *Myosotis aretioides* Cham. Linnaea 4: 443. 1829. — Low, depressed-cespitose, forming dense mats with tufted branches to the caudex: leaves sessile, imbricated, forming rosettes, densely white-villous, oblong-elliptical, about 3<sup>mm</sup> long: peduncles immersed in the leaves, flowers as if sessile: calyx with oblong acute divisions extending to near the base, 1.5<sup>mm</sup> long, surpassing the tube of the corolla: nutlets with a toothed or spinulose border on the back.

Type locality: "Ad sinum St. Laurentii mixtim cum precedente, melioraque specimina in insula Sancti Laurentii 1817 collegimus." Chamisso.

#### SCROPHULARIACEAE.

142. PEDICULARIS CAPITATA Adans. Mem. Soc. Nat. Mosc. 5: 100. — Perennial from slender running roots: stems scapose or with 1 or 2 leaves below the inflorescence, pubescent with white-woolly hairs: radical leaves on long petioles, once to



twice the length of the blades; these pinnately divided with segments opposite or alternate, ovate, incisely lobed; stem leaves similar but on shorter petioles: flowers capitate; bracts sessile, with oblong, crenate divisions, surpassing the calyx: calyx woolly-pubescent, about as long as the tube of the corolla, enlarging somewhat in age: corolla about 3<sup>cm</sup> long; lower lip erect, with the lobes not spreading, orbicular, crenulate, woolly-pubescent to the insertion of the stamens, gibbous below the throat; upper lip arching, truncate at tip, about 5<sup>mm</sup> broad, apparently yellowish-white tinged with rose-color; tube 1<sup>cm</sup> long: filaments villous at base, inserted 1.5<sup>mm</sup> above the base, flat with a central rib; anthers purplish, the margins and sagittate bases white: ovary conical, with style 4<sup>cm</sup> long; stigma capitate: capsule oblique at apex, beaked on one side, exserted from the calyx.



FIG. 6.—*Pedicularis capitata*. *a*, corolla; *b*, calyx. Nat. size.

143. *PEDICULARIS* sp.—This is closely related to the preceding, but as there is only one specimen and that not good, I hesitate to name it as a distinct species. The difference in the shape of the flowers can be seen from the figures. It differs from *P. capitata* in the shape of the bracts, calyx, corolla, and in the glabrous filaments.



FIG. 7.—*Pedicularis* sp. *a*, corolla; *b*, calyx. Nat. size.

144. *Pedicularis hians*, n. sp.—Root slender, woody, branching 1<sup>cm</sup> below the stem: stems 1—several, 10–15<sup>cm</sup> high, purple, glabrous and shining below, becoming woolly-pubescent above, clothed at base with brown, imbricated, ovate scales; radical leaves on very slender petioles 2–3 times the length of the pinnatifid blades, glabrous with few very (2<sup>mm</sup> long) dentate divisions; cauline leaves 2–2.5<sup>cm</sup> long with broad, linear-lanceolate rhachis twice as broad as the deltoid, entire or dentate, tooth-like divisions which extend almost or quite to the base of the



leaf, glabrous except for a few woolly hairs: bracts similar to the cauline leaves, the lower ones surpassing the flowers: flowers capitate, becoming racemose-spicate, on short erect pedicels appressed to the stem: calyx of 5 divisions, the upper one keeled, the 2 lower with the notch between deeper than the

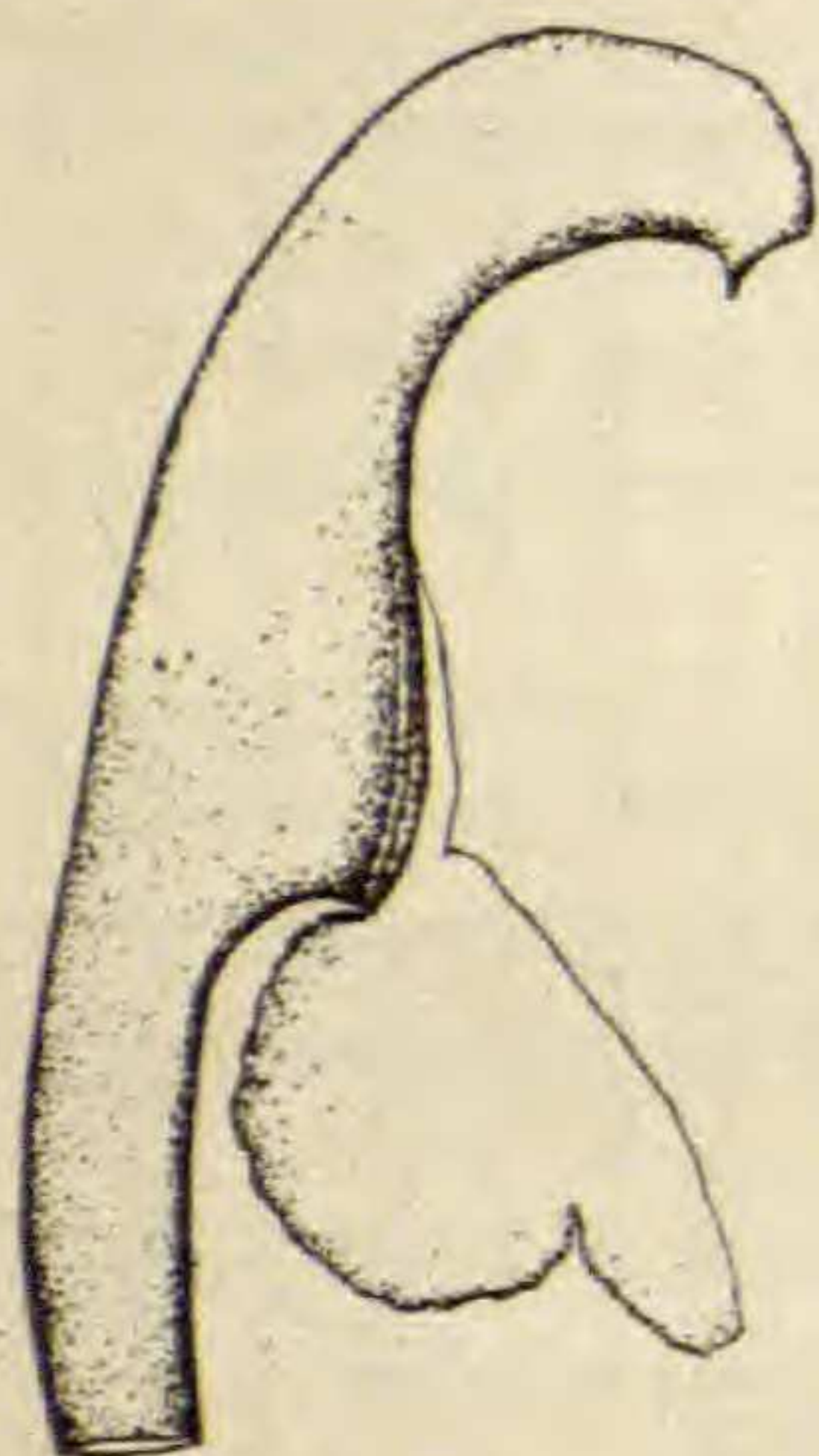


FIG. 8.—*Pedicularis hians*.  $\times 2\frac{1}{2}$ .

others, the 2 side lobes tipped with a crenate-dentate apex, slightly woolly-pubescent: corolla purple with exserted tube, falcately curved galea with the tip blunt and a setaceous acuminate tooth below the apex; lower lip 3-lobed, with orbicular lobes, the middle one smallest, crenate on the margins; throat hairy within, the hairs extending to the tube below: filaments woolly at base and below the anthers; these reddish, tipped with white at the sagittate base: capsule oblique, lanceolate, twice as long as the calyx, cuspidate at apex; style and white tips of anthers exserted.

This is near *P. Sudetica* Willd., but differs in the shape of the corolla and the form of the leaves.

145. *PEDICULARIS HIRSUTA* L. Sp. Pl. 609. 1753.—Stems rather stout, about 1.5<sup>dm</sup> high, clothed at base with the sheathing brown petioles of former leaves: radical leaves with rhachis 1<sup>mm</sup> broad, divisions numerous, linear, dentate, glabrous, entire leaf 5<sup>mm</sup> wide, and together with the petiole 5–7<sup>cm</sup> long; cauline leaves with much broader rhachis and divisions smaller, resembling the snout of a sword-fish, lanate at the dilated bases: inflorescence racemose-spicate, villous-lanate, with erect pedicels about equaling the calyx: calyx campanulate, dentate, ribbed, lanate at apex, 4<sup>mm</sup> long: corolla with tube a little longer than the galea (8<sup>mm</sup>), exserted from the calyx; galea about 5<sup>mm</sup> long, erect, arched, obtuse at apex; lower lip with the lobes almost equal, the middle one concave, erosely crenate



FIG. 9.—*Pedicularis hirsuta*.  $\times 2\frac{1}{2}$ .



on the margin, glabrous within; stamens with 2 filaments glabrous and 2 woolly-pubescent; anthers white, blotched and dotted with brown on the middle: capsule twice as long as the calyx, beaked on one side.

Type range: "in Lapponiae Alpibus."

146. *PEDICULARIS LANGSDORFFII* Fisch. in Stev. Monogr. in Mem. Soc. Mosc. 6: 49. *pl. 9. fig. 2. excl. var. b.*—Stems low, rather stout, 8–10<sup>cm</sup> high, clothed at base with broad ovate scales: radical leaves with petioles equaling the blades, together 4–6<sup>cm</sup> (generally there are some smaller and shorter leaves on very short petioles), pinnatifid with oblong-deltoid divisions, confluent, crenate-dentate near the apex; cauline leaves with the lobes deltoid and generally entire: flowers spicate, but on short appressed pedicels: calyx narrow, 1<sup>cm</sup> long, 2–3<sup>mm</sup> wide, conspicuously ribbed, with divisions unequal, linear, foliaceous, some or all crenate near the apex, 3–4<sup>mm</sup> long: corolla with tube about equaling the galea, exserted from the calyx; galea curved but not falcate, obtuse at apex; lower lip with middle lobe much smaller than the other two: stamens with two filaments woolly and two glabrous: capsule not formed.

Type locality: "in Sibiria Arctica circa ostia Lenae." "Kamtschatka," ex Ledeb. Fl. Ross. 3: 288.

147. *PEDICULARIS LANATA* Willd. ex Stev. l. c. 1823.—Similar to the preceding, but the leaves have the divisions more finely lobed and so appear more dissected, the spike is densely lanate and the flowers are smaller: calyx about 5<sup>mm</sup> long, with obtuse entire divisions half the entire length: corolla with tube equaling the galea; lower lip prominently ridged on the upper surface.

The general form of these two species is the same, the filaments of the last being more densely woolly.

148. *PEDICULARIS SUDETICA* Willd. Sp. Pl. 3: 209. no. 13.—Stems 1–several from the root, clothed at base with brown sheaths, glabrous to near the inflorescence, sparsely leaved: radical leaves on broad petioles, longer than the blades, pinnatifid, with divisions linear-oblong, incisely toothed, with white



cartilaginous teeth 3–4<sup>mm</sup> long; cauline leaves similar but sessile: bracts like the leaves or simple with incised or crenate margins, linear in outline, longer than the calyx: flowers on short pedicels, crowded on a capitate spike that lengthens some with age, woolly-pubescent: calyx shorter than the tube of the

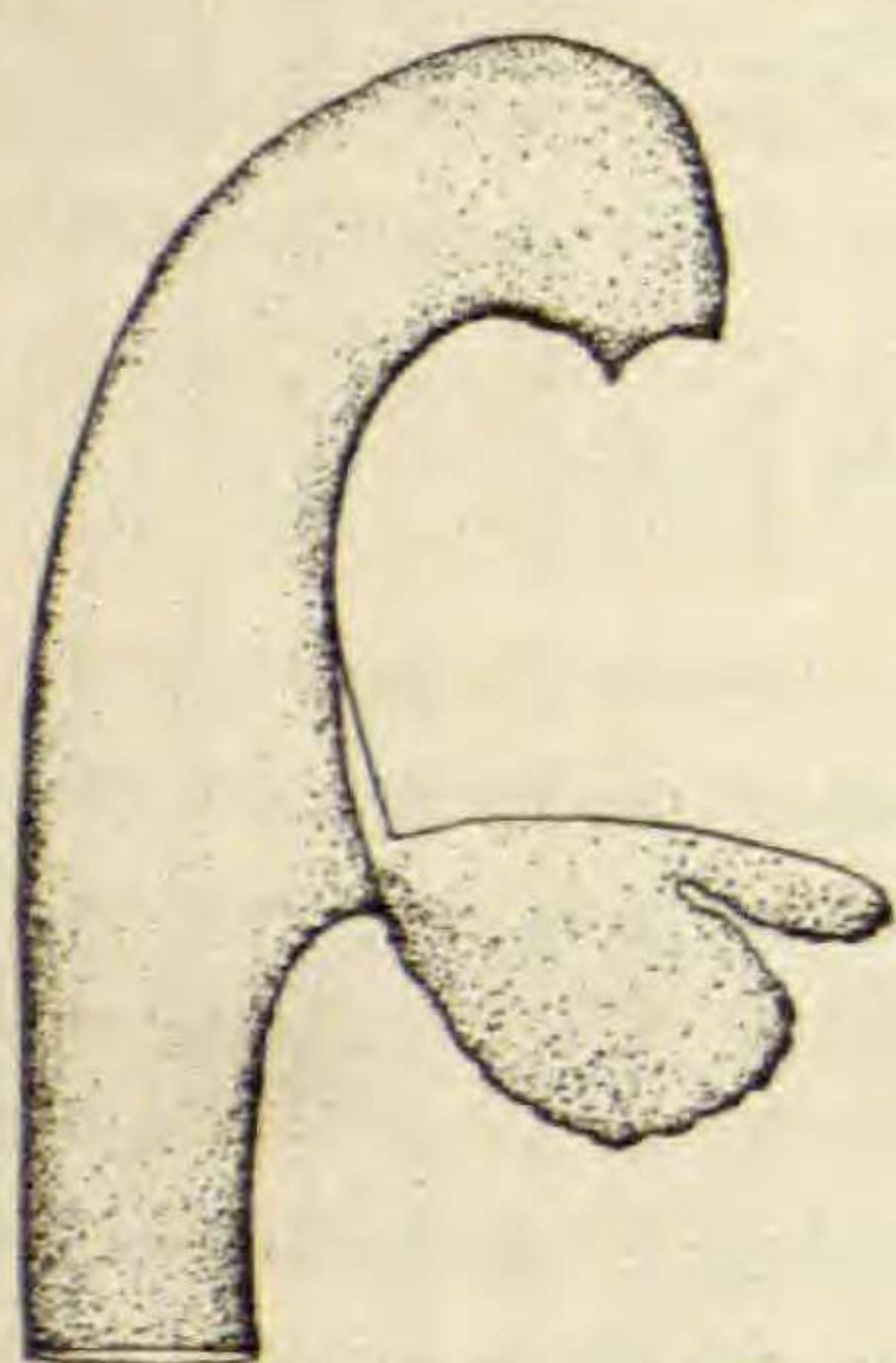


FIG. 10.—*Pedicularis Sudetica*.  $\times 2\frac{1}{2}$ .

corolla, with linear divisions 3<sup>mm</sup> long, acute, about half as long as the purple, glabrous tube: corolla purple; lower lip with 3 orbicular spreading lobes, the middle one longest but narrowest, erose-crenulate; galea arching a little, longer than the lower lip, with 2 teeth at tip: filaments glabrous: capsule oblique at apex, beaked on one side, exserted from the calyx about 2<sup>mm</sup>.

Type range: "in montibus Sudetis inque Sibiria."

149. *PEDICULARIS VERTICILLATA* L. Sp. Pl. 608. 1753.—Stems several from a thick root, 10–15<sup>cm</sup> high, reddish, woolly-pubescent, leafy with opposite or whorled leaves: leaves petioled, pinnately divided, the oblong divisions with white cartilaginous teeth: flowers purplish, in interrupted, bracteate, whorled spikes: calyx shorter than the tube of the corolla, woolly, veiny, dentate: corolla with galea erect, scarcely arched, with blunt tip, spreading from the 3-lobed lower lip which is longer and several times broader: capsule ovate-acuminate, 1<sup>cm</sup> long, much exserted.

Type range: "in Sibiria, Helvetia, Austria."

150. *VERONICA ALPINA* L. Fl. Lapp. pl. 9. fig. 4. 1792.—Stems slender, with small, opposite, ovate leaves, entire or sparingly denticulate: flowers small, purplish-blue, in an oblong or capitate spike: fruit emarginate.

The woolly pubescence becomes glandular on the inflorescence and the upper part of the stem. It is apparently abundant.

In the figure referred to above, the stamens and style are exserted beyond the corolla, but in all the specimens at hand they are shorter than the corolla. It seems more like the variety figured in the Bot. Mag. pl. 2975 under var. *Wormskioldii*.



## SELAGINACEAE.

151. *LAGOTIS GLAUCA* J. Gaertn. Nov. Comm. Petrop. 14: 533. 1770. *Gymnandra Stelleri* Ch. & Schl. (1827).—Leaves mostly radical, those on the stem bract-like: fruit 2-celled, as in the Scrophulariaceae, but each cell with but one seed: calyx spathe-like: corolla blue, tubular-bilabiate; upper lip entire, lower 2-cleft: stamens 2, inserted in the throat of the corolla, not equaling the style, which is capped with a capitate stigma.

Type localities: "in Siberia inter Lenam et Oceanum (Steller) nos in frigidissimis rupestris ad sinum St. Laurentii collegimus." Chamisso.

This rarely collected plant has the appearance of *Synthyris*.

## LENTIBULARIACEAE.

152. *Pinguicula arctica*, n. sp.—Leaves rosulate, glabrous, apparently fleshy, broadly ovate, sessile, obtuse, 1–2<sup>cm</sup> long, 5–8<sup>mm</sup> wide: scape purple, glabrous below, glandular-pubescent above, 1-flowered, 7<sup>cm</sup> high: calyx 2-lipped; upper lip of 3 deltoid divisions half as long as the lip, the sinus acute; lower lip narrower, with 3 shorter teeth and obtuse sinus one-third as long as the division: corolla purple, 11<sup>mm</sup> long, hairy within, with club-shaped hairs that extend to the lobes of the upper lip; lobes 3, orbicular, 4<sup>mm</sup> across; lower lip of 2 similar but shorter lobes; spur slender, tapering, 7<sup>mm</sup> long: stamens 2, with filaments dilated at base, nearly 2<sup>mm</sup> long, surmounted by capitate anthers: ovary orbicular, glabrous; stigma of 2 white broad plates, thin in texture.

This appears to be near *P. vulgaris*, but the corolla is of a different shape and hairy within, while the spur is longer.

## RUBIACEAE.

153. *GALIUM BOREALE* L. Sp. Pl. 108. 1753.—This is found throughout the northern hemisphere. The leaves are in whorls of 2 to 4, the tiny white flowers in loose thyrsiform panicles, and the fruits densely hispid.

Type range: "in Europae borealis pratis."



## CAPRIFOLIACEAE.

154. LINNAEA BOREALIS L. Sp. Pl. 631. 1753.—The beautiful twin-flower is found throughout the northern hemisphere at high latitudes and in the mountains at subalpine elevations.

Type range: "in Sueciae, Sibiriae, Helvetiae, Canadae sylvis antiquis, muscosis, sterilibus, umbrosis."

## VALERIANACEAE.

155. VALERIANA CAPITATA Pall. Link. Jahrb. 13: 66. Ledeb. Ic. Fl. Ross. *pl.* 346.—Stems simple, 18–30<sup>cm</sup> high: lowest stem leaves suborbicular, on broad connate-clasping petioles as long as the blade, together 1–2<sup>cm</sup> long; second pair of leaves unequally and broadly ovate, 2.5<sup>cm</sup> long, on similar petioles 5<sup>mm</sup> long, obscurely denticulate; third pair ovate-acuminate, with narrow lanceolate-acuminate lobes at the sessile base, these lobes one-fifth the length of the main division; nodes hirsute: inflorescence capitate-glomerate; peduncles long, sometimes with two slender branches; involucral leaves of narrowly linear to almost filiform divisions; bracts of the cyme narrowly linear-subulate: corolla white tinged with rose, funnelform, 6–7<sup>mm</sup> long, one lobe broader than the other three, tube slightly saccate at base: stamens 3, together with the 3-lobed styles exserted: akenes ovate, 3<sup>mm</sup> long, 1-nerved on one side, 3-nerved on the other.

Type locality: "mont. sabinensibus."

## COMPOSITAE.

156. ACHILLEA MILLEFOLIUM L. Sp. Pl. 899. 1753.—Stems erect, 1–3<sup>dm</sup> high, simple or branched above: leaves bipinnatifid, with the segments pinnately-parted into fine setaceous divisions, lanceolate in outline, 4–9<sup>cm</sup> long, 5–10<sup>mm</sup> wide, the lower ones on short petioles dilated at base, the upper sessile: the entire plant white-villous, most densely so at the leaf axils: heads in a broad compound cyme, often with later branches below the main cluster; bracts of the involucre in 3 series, in successive ranks, the linear inner ones narrower and longer than the ovate outer ones, each with the midrib green, keeled, and the border brown



hyaline: rays white, oblong-orbicular, entire  $3^{\text{mm}}$  long  $2.5^{\text{mm}}$  wide.

Type range: "in Europae pascuis pratisque."

157. *ANTENNARIA ALPINA* Gaertn. Fruct. 2:410. *pl.* 167. 1791.—Heads solitary, with campanulate involucre tomentose at base, above black-brown: involucral scales of the male plant obtuse, denticulate at apex, often emarginate; those of the female plant acuminate: upper leaves terminated by a scarious appendage, the lower mucronate.

This agrees perfectly with the description of Lessing in *Linnaea* 6:221.

158. *Aster arcticus*, n. sp.—Stems low from a slender creeping rootstock, striate, villous below, becoming lanate under the solitary head, leafy,  $1-1.5^{\text{dm}}$  high: lowest leaves linear-oblong to narrowly elliptical, sessile, mucronate; upper ones lanceolate, acuminate, short-petiolate, sharply serrate: pubescence on the lower surface rough, appressed; glabrous on the upper: head  $2^{\text{cm}}$  in diameter; bracts of involucre equal, lanceolate-acuminate, purple-margined or the inner ones entirely purple, villous,  $8^{\text{mm}}$  long,  $1-2^{\text{mm}}$  wide: disk corollas purple, glabrous: stamens yellow: style with the appendages hairy at the tips: akenes white-hispid: pappus tawny or the outer purplish.

This is near *Aster preregicus* Pursh, none of the synonyms of which describe it. On sand bars of Nome river.

159. *ARNICA OBTUSIFOLIA* Less. *Linnaea* 6:236. 1831.—Leaves clustered at the base, oblong, tapering to a broad base, callous denticulate and tipped with a callous point, 3-veined from base to apex, generally also with a shorter vein on each side near the margin,  $3-5^{\text{cm}}$  long,  $5-10^{\text{mm}}$  wide, glabrous except for the ciliate margins: heads solitary, terminating long penduncles, almost  $2^{\text{dm}}$  high, woolly-pubescent: involucral bracts in 2 series, lanceolate, the outer purplish, broader than the green, inner ones  $11^{\text{mm}}$  long: rays 10, 3-toothed at apex, ligulate,  $15^{\text{mm}}$  long,  $3-5^{\text{mm}}$  wide: stamens with black anthers: akenes glabrous: disk corollas with tube hairy and limb glabrous.

Type locality: Unalaschka."



160. ARTEMISIA NORVEGICA Fries, var. PACIFICA Gray Syn. Fl. N. Am. 1: 371.—Stems erect, about 3<sup>dm</sup> high, glabrous below, villous above: leaves pinnatifid with the divisions incised, the upper 3 confluent, the lowest smallest; petiole of basal leaves equaling the blade, clasping at base; cauline leaves sessile with simpler divisions: heads racemose-paniculate, on long slender peduncles, somewhat secund, nodding at summit: involucre bracts glabrous, dark green margined with brownish-purple, scarious and erose on the margins: disk flowers with perfect akenes.

While this does not agree exactly with the description of the above cited variety it seems best to leave it under that name.

161. ARTEMISIA TILESII Ledeb. Mem. Acad. St. Petersburg. 6: 568, ex Linnaea 6: 214. 1831.—Stems erect, 3-4.5<sup>dm</sup> high, striate, somewhat tomentose: leaves pinnately parted into 3-7 linear-attenuate divisions, the top one much the longest, densely white-tomentose on the lower surface, less so on the upper: bracts linear-attenuate, sometimes with 1 or 2 narrow divisions near the base: heads nodding on erect pedicels in a narrow spiciform thyrsus, more loosely flowered below and taking up half the length of the plant: bracts of the involucre with the middle part greenish, villous, the margin violet-brown, erose: corolla purple or yellow, with glandular tube.

162. CHRYSANTHEMUM INTEGRIFOLIUM Richards App. Frankl. Journ. ed. 2, p. 33. 1823. *Leucanthemum integrifolium* DC. Prodr. 6: 46. 1837.—Stems low, scapose, terminated by a solitary head, 2.5<sup>cm</sup> in diameter, white-villous, about 8<sup>cm</sup> high: leaves rosulate, linear, obtuse, entire, 1-nerved, 1<sup>cm</sup> long: involucre bracts green in the middle and hairy, brown-scarious and erose on the margins, acuminate, 4<sup>mm</sup> long: rays white, ligulate, obtuse or emarginate at apex, 9<sup>mm</sup> long, 2<sup>mm</sup> broad: akenes small, glabrous, without pappus.

163. ERIGERON UNIFLORUS L. Sp. Pl. 864. 1753. Fl. Lapp. pl. 9. fig. 3.—Stems about 7<sup>dm</sup> high, slender, villous with long white hairs: radical leaves spatulate-oblongate; cauline linear, villous; the lower ones glabrate: head solitary, 1.5<sup>cm</sup> in diameter:



involucral bracts linear-attenuate, densely clothed with purple woolly hairs, 5<sup>mm</sup> long, very narrow: rays purple, filiform, about 50, 4<sup>mm</sup> long; disk corollas tubular, with 5 purple teeth at summit: pappus barbellate, white: akenes hispid with spreading hairs.

Type range: "in Alpibus Lapponiae, Helvetiae."

164. PETASITES FRIGIDA Fries. Syll. 20. 1854-55. *Tussilago frigida* L. Sp. Pl. 865. 1753.—Leaves deltoid-ovate, deeply cordate at base, irregularly and deeply sinuate-dentate or lobed, the teeth callous-tipped; upper surface almost glabrous, lower white tomentose; petioles equaling or longer than the leaves, together 8<sup>cm</sup> long: bracts of the flowering stem sheathing, scarious, sometimes foliaceous at apex: female plants with heads in corymbs; bracts of the involucre 1<sup>cm</sup> long, subulate, a few linear calyculate bractlets at base: akenes linear, glabrous, obtusely ribbed, with loose outer coat: pappus 1.5<sup>cm</sup> long.

Type range: "in Alpium Lapponiae, Helvetiae, Sibiriae, convallibus."

165. SAUSSUREA ALPINA DC. Prodr. 6:535. *Serratula alpina* L. Sp. Pl. 816. 1753.—Stems simple, 5<sup>cm</sup> to 1.5<sup>dm</sup> high, ribbed, loosely arachnoid-tomentose: leaves lanceolate, narrowed at base, strongly 1-nerved, loosely tomentose, with margins entire or revolute: heads 1-5; involucral bracts in 4 series, ovate, the outer successively shorter, purple, glandular-hairy; involucre 15<sup>mm</sup> high: rays none: akenes black, glabrous, with plumose pappus: receptacle with slender chaffy scales among the flowers: corolla with linear divisions to the border, almost equaling the tube, rose-color.

Type range: "In Alpibus Lapponiae, Austriae, Helvetiae, Arvoniae, Sibiriae."

166. SENECIO FRIGIDUS Less. Linnaea 6:239. *Cineraria frigida* Richards (1823). Hook. Fl. Bor.-Am. 1:334. *pl.* 112. 1840.—Stems simple, 2-flowered, 12-15<sup>cm</sup> high, glabrous below, clothed with brown floccose wool above: radical leaves oblong, dentate, on petioles nearly twice as long as the blade; lower stem leaves with broadly dilated clasping petioles; upper stem leaves sessile



by a clasping base, sparingly floccose-tomentose, few and diminishing upwards: heads large, terminal, solitary, almost 3<sup>cm</sup> in diameter; involucral bracts densely clothed with brown wool, linear-oblong, acute, 6<sup>mm</sup> long: rays about 14, oblong, 3-toothed; disk corollas with campanulate limb, the slender tube longer than the pappus: akenes striate, glabrous.

This may be another species, as it differs in the shape of the disk corollas. The limb in this is more abruptly contracted at base to a more slender and longer tube. In all other respects the two seem identical.

167. *SENECIO LUGENS* Hook., var. **Blaisdellii**, n. var.—Stems simple, 1.5–2<sup>dm</sup> high, tomentose: radical leaves lanceolate-oblong, narrowed to a sessile base, denticulate, about 7<sup>cm</sup> long, 1<sup>cm</sup> wide (the earliest ones spatulate, much shorter and broader); cauline mostly near the base, narrowly acuminate, dentate below the middle; upper part of stem generally leafless to the inflorescence which is subtended by 1 or 2 leaves: head cymose, 3–5-flowered; pedicels more or less tomentose, the middle one generally half as long as the others; bracts of the inflorescence narrowly linear, black-tipped; involucre campanulate, with a few calyculate bractlets at base; scales oblong, acute, ribbed, tipped with dark purple, 5<sup>mm</sup> long: rays linear-oblong, 6<sup>mm</sup> long, 3–4-veined, obtuse or denticulate at apex: style tips truncate, tufted: akenes glabrous, striate.

This is much smaller in all its parts than the typical form as figured by Hooker, and has fewer heads.

168. *SENECIO RESEDIFOLIUS* Less. *Linnaea* 6: 243. 1831.—Stems 1–2 from the base, 6–10<sup>cm</sup> high: lowest leaves orbicular, crenate-dentate to lyrate-pinnatifid, on broad petioles dilated at base, glabrous or slightly tomentose: upper leaves smaller, sessile, narrowed to a slender acumination: heads solitary, terminating the stem: bracts of the involucre reddish-purple, narrowly linear, obtuse or pointed, 5<sup>mm</sup> long: rays about 13, orange, 2–3-toothed or cleft, 12<sup>mm</sup> long, 1.5<sup>mm</sup> wide: akenes glabrous (very young), with barbellulate pappus: style branches tipped with a cusp surrounded by a tuft of hairs.

Type locality: "In sinu St. Laurentii."



169. *SOLIDAGO MULTIRADIATA* Ait. Hort. Kew. 3:218. 1789.  
—Stems erect, generally several from a woody rootstock, 2<sup>dm</sup> high: radical and lowest stem leaves lanceolate-oblong, narrowed to margined petioles, equaling or much exceeding the blades in length, together 2–13<sup>cm</sup> long, 5–10<sup>mm</sup> wide, entire or serrate near the apex, veiny, white-woolly-ciliate especially on the petioles; stem leaves sessile: heads in a round or oblong glomerule, often with some looser and smaller clusters in the axils below: involucral bracts narrowly linear-acuminate, 4<sup>mm</sup> long, ciliate: rays about 15, narrowly linear, 3–4<sup>mm</sup> long: akenes pubescent.

Type locality: "Labrador."

170. *TARAXACUM OFFICINALE LIVIDUM* Koch, ex Gray Syn. Fl. 1:440.—Low, acaulescent, glabrous: leaves lyrate-pinnatifid, with petioles exceeding the blades, together 2–5<sup>cm</sup> long: scape 5–7<sup>cm</sup> long: involucral bracts turning black in drying; outer ones ovate, obtuse, slightly ciliate at the apex; inner longer, linear, with membranous margins: outer rays yellow, with black and white lines down the middle; inner ones clear yellow, ligulate, toothed at apex, almost 1<sup>cm</sup> long: heads about 2<sup>cm</sup> in diameter.

The following species, not included among Dr. Blaisdell's collection, were collected the previous year by Mr. George T. Ruddock at a place near Cape Nome known as Camp Teller: *Ranunculus Pallasii* Schlecht., *Lathyrus maritimus* Bigel., *Conioselinum Gmelini* C. & R., *Androsace septentrionalis* L., *Castilleja pallida* Kunth, *Mertensia maritima* Don., *Artemisia borealis* Pall., and *Taraxacum Dens-leonis* L. var.

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